Important: Included below are the steps in this automotive procedure as shown in the episode. These steps are general guidelines that are applicable to most vehicles. With any particular vehicle, there may be procedures, specifications, settings, tolerances, components, etc. that are specific to that vehicle. There are also variations according to the type and brand of a/c kit you select. Always consult your vehicle's service manual when undertaking significant automotive repairs, and read and follow the manufacturer's directions and precautions that come with your kit or replacement parts.

In addition to standard auto-mechanic's tools, some of the specialty tools that will be needed for this project include **a/c gauges, vacuum pump, dye-trace kit, refrigerant** and **digital thermometer**
. An air-ratchet is optional, but will help speed the assembly process.

Safety Alert: Always wear eye protection, and follow proper safety precautions, when working with power tools.

Parts Inventory

Following are some of the major components included in the a/c kit used in our installation.

- A new decal for installation on the dash panel and an a/c-compressor switch.
- New hoses and evaporator assembly. The evaporator takes the place of the existing blower-motor that is currently on the truck.
- The receiver dryer serves to remove moisture from the system as the a/c operates.
- The compressor assembly is the heart of the a/c system, and comes complete with a clutch and a bracket for mounting the assembly onto the engine. It also comes with all the necessary fasteners, a belt-tensioner, and belt.
- The condenser assembly resembles a small radiator, and contains the refrigerant. This part becomes extremely hot during operation, and is mounted near the truck's front-grill.
- The condenser in our kit is a universal design, and is made with a series of pre-drilled holes down both sides for installation. Several mounting brackets are included in the kit also. The brackets you use will depend on your vehicle. Check the directions that come with your kit to identify the proper mounts for your vehicle.
- The existing fan-guard on the truck will be replaced with a fan-shroud as part of the a/c upgrade.

Condenser Installation

- To provide greater access, we removed the hood from the truck before beginning the installation. This step may not be necessary in all cases.
- You'll need to remove a few items before the condenser can be installed. In our case, that meant disconnecting the coolant recovery hose and removing the front-grill cover.

Tip: The grill and associated trim pieces may be secured onto the vehicle using plastic fasteners. If this is the case, be very careful in removing them so as to avoid damaging them.

- With the grill-cover removed, loosen and remove the bolts holding the fan-guard in place. In our case, there were only two of these bolts and they were easy to access.
- The next step is to remove the radiator. Two bolts anchor it to the core support at the top. Loosen and remove the bolts and carefully lift the radiator off of its lower mounts and tilt it toward the engine .
- The condenser is mounted between the radiator and grill, and is held in place by clips (provided with the kit) that snap into factory-manufactured holes.
- Slide the condenser into position, and bolt it on securely according to the manufacturer's directions.
- Secure the condenser at the bottom by installing the provided lower-brackets.
- With the condenser unit installed, reinstall the radiator by reversing the earlier steps used to remove it.

RESOURCES :

The Complete Idiot's Guide to Trouble-Free Car Care
Author: Dan Ramsey
ISBN: 0028635833
Alpha Books

Auto Repair for Dummies
Author: Deanna Sclar
ISBN: 0764550896